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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,235	11/07/2001	Jennifer L. Lee	55393US011	1507
32692 7590 12/17/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER BERMAN, SUSAN W	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 12/17/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com  
LegalDocketing@mmm.com

# Office Action Summary

Application No.

10/008,235

Applicant(s)

LEE ET AL.

Examiner

/Susan W. Berman/

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-24,26,27,64-71 and 76-78 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-24,26,27,64-71 and 76-78 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10-07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-31-2007 has been entered.

***Response to Amendment/Arguments***

The rejection of claims 8-24, 26, 27, 64-66 and 68-71 35 U.S.C. 103(a) as being unpatentable over WO 98/27171 is withdrawn. WO '171 does not mention elongation or fairly suggest ink compositions comprising 0.5 to 25 weight percent multifunctional monomer other than trifunctional monomers or main-chain alkoxylated monomers. WO '171 teaches that the preferred monomers, including hexanediol diacrylate, tetrahydrofurfuryl acrylate, isobornyl acrylate and ethoxyethoxyethyl acrylate, are used in amounts from 25-70% by weight on page 6. WO '171 teaches that the amount of each monomer in a mixture can be varied to provide the final composition with a desired combination of properties (page 6-7). Examples 2 and 4 employ mixtures of EEEA (pendant alkoxylated moiety), HDDA (diacrylate) and THFFA (heterocyclic). Examples 3, 5, 6 and 8 employ mixtures of THFFA and HDDA as reactive monomers. Example 7 employs a mixture of IBA (high Tg), THFFA and HDDA as reactive monomers. The weight percent EEEA or THFFA in each example is within the 0.1 to 50 wt.% recited in instant claim 1. However, the wt. % multifunctional monomer in each example is significantly greater than the 0.5 to 25 wt% set forth in instant claim 8 and it is agreed that there is no suggestion to select the

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combination of monomers in the weight percents now set forth in the instant claims from the disclosure of WO '171.

WO 99/29787, as discussed on page 2 of the Office Action mailed 10-15-2007, teaches ink jet ink compositions comprising tri- or higher functionality materials that are alkoxylated acrylates (page 11) that are excluded from the instantly claimed compositions. WO '787 teaches that the disclosed compositions preferably contain 10-30 % by weight tri- or higher functionality materials in the reactive liquid material (page 16). WO '787 further teaches selecting mono-, di- and tri- or higher functionality components so that the average number of radiation polymerizable carbon-carbon double bonds is 1.25 to 2 (page 17).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-16 and 78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent in claim 8 as amended for the recitation 0.5 to 70 weight percent of the adhesion promoting component and 0.5 to 50 weight percent of the "one" multifunctional monomer having a plurality of radiation curable moieties. Claim 8 now recites 0.5 to 50 weight percent of the adhesion promoting component and 0.5 to 25 weight percent of the "at least one" multifunctional monomer having a plurality of radiation curable moieties. With respect to claim 78, it is not clear what is intended to be claimed by the phrase "the reactive diluent comprises 0.5 to 30 weight percent of the component is high Tg

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component". Does applicant intend to set forth phrase "the reactive diluent comprises 0.5 to 30 weight percent of the high Tg component" or something else?

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 8-24, 26, 27, 64-71 and 76-78 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,534,128. Although the conflicting claims are not identical, they are not patentably distinct from each other because the components of the compositions meeting the definitions set forth in the claims of US '128 and the instant application can be the same components although the definitions in the claims are not identical. The aliphatic urethane acrylate oligomers set forth in the claims of US '128 correspond to the oligo/resin set forth in the instant claims. The radiation

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curable reactive diluent set forth in the claims of US '128 considered in view of the disclosure of components providing the reactive diluent comprises the instantly claimed reactive diluent because the same components as disclosed are set forth in the instant claims.

Claims 8-24, 26, 27, 64-71 and 76-78 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,558,753. Although the conflicting claims are not identical, they are not patentably distinct from each other because the components of the compositions meeting the definitions set forth in the claims of US '753 and the instant application can be the same components although the definitions are not identical. The oligo/resin is set forth in the claims of US '753 and in the instant claims. The radiation curable reactive diluent set forth in the claims of US '753 considered in view of the disclosure of components providing the reactive diluent comprises the instantly claimed reactive diluent because the same components as disclosed are set forth in the instant claims.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB  
11/30/2007

/Susan W Berman/  
Primary Examiner  
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